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EXAMINER	
HUTTON JR, WILLIAM D	
ART UNIT	**PAPER NUMBER**
2179	

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/904,092	HSU ET AL.	
	Examiner	Art Unit	
	Doug Hutton	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant's Response

In Applicant's Response dated 14 October 2004, Applicant amended the Abstract, corrected the Drawings, amended Claims 1, 12, 14 and 16-18, added new Claim 20, cancelled Claim 19, and argued against all objections and rejections previously set forth in the Office Action dated 16 July 2004.

The objections to the Abstract and the Drawings are withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-18 remain rejected under 35 U.S.C. 102(b) as being anticipated by DeRose et al., U.S. Patent No. 5,983,248. Also, Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by DeRose et al., U.S. Patent No. 5,983,248.

Claim 1:

DeRose discloses a system for processing a plurality of related sub-documents to produce information associated with an encompassing document structure (see Figures 4 and 5; see Column 3, Lines 44-53; see Column 4, Lines 32-37; see Column 11, Lines 27-37 – DeRose discloses this limitation in that the electronic publishing system is used to access portions of a large document), comprising:

- a source of control information for determining content structure of an encompassing document (see Figures 4 and 5; see Column 8, Line 47 through Column 9, Line 39 – DeRose discloses this limitation in that the electronic publishing system includes an SGML document that defines the structure of the "encompassing document," as shown in the tree structure of Figure 5; in other words, the SGML document is the "encompassing document" and the various portions of the SGML document are the "sub-documents");
- a first document processor for deriving internal structure information of each of said plurality of related sub-documents in response to said control information (see Figure 6; see Column 9, Lines 40-59 – DeRose discloses this limitation in that the electronic publishing system includes the element directory shown in Figure 6, which comprises information about each element of the "encompassing document");
- a second document processor for deriving external structure information between said plurality of related sub-documents in response to said control information (see Figures 16-18; see Column 18, Line 4 through Column 20, Line 13 – DeRose discloses this limitation in that the electronic publishing system includes construction of a table of contents by identifying the elements, determining the hierarchical relationships between the elements and analyzing the element relationships to organize the elements into a table of contents); and
- a data generator for generating a table of contents representing said internal structure information and said external structure information (see Figures 9-11;

see Column 18, Lines 63-64 – DeRose discloses this limitation, as clearly indicated in the cited figures and text).

Claim 2:

DeRose discloses the system of Claim 1, wherein said data generator further generates menu icons representing navigation controls supporting User navigation through said encompassing document structure using table of contents information (see Figure 10 – DeRose discloses this limitation in that the electronic publishing system includes buttons that allow user navigation in the "encompassing document;" also, the limitation "menu icons" read on many other navigation controls displayed in Figure 10).

Claim 3:

DeRose discloses the system of Claim 2, wherein said navigation controls comprise one or more of, (a) controls for navigating between sub-documents and (b) controls for navigating within an individual sub-document (see Figure 10 – DeRose discloses this limitation in that the electronic publishing system includes buttons that allow user navigation between the sub-documents; the electronic publishing system discloses "controls for navigating within an individual sub-document" in that it includes scroll bars, hyperlinks and cross-references within the sub-documents).

Claim 4:

DeRose discloses the system of Claim 2, wherein said navigation controls comprise one or more of, (a) controls for navigating forward or backward between sub-documents and (b) controls for navigating upward or downward within an individual sub-document (see Figure 10 – the electronic publishing system discloses "controls for navigating forward or backward between sub-documents" in that it includes buttons that allow user navigation between the sub-documents; the electronic publishing system discloses "controls for navigating upward or downward within an individual sub-document" in that it includes scroll bars, hyperlinks and cross-references within the sub-documents).

Claim 5:

DeRose discloses the system of Claim 1, wherein said sub-documents comprise one or more of, (a) an SGML document, (b) an XML document, (c) an HTML document (d) a document encoded in a language incorporating distinct content attributes and presentation attributes, and (e) a multimedia file (see Column 12, Lines 41-45 – DeRose discloses this limitation in that the electronic publishing system includes "sub-documents" comprising HTML documents).

Claim 6:

DeRose discloses the system of Claim 1, wherein said first document processor derives said internal structure information by identifying at least one of, (a) objects

within a document and (b) divisions between objects (see Figures 5 and 6 – DeRose discloses this limitation in that the electronic publishing system includes the "element directory," as indicated in the above rejection for Claim 1; the element directory identifies "objects within a document" in that it includes all elements of the "encompassing document;" also, the element directory identifies "divisions between objects" in that it separates each element into its own record in the table).

Claim 7:

DeRose discloses the system of Claim 6, wherein said objects within a document comprise heading objects including at least one of: headings, footers, headers, figure titles and table titles, and non-heading objects including at least one of: paragraphs, lists tables and graphics. (see Figures 6 and 9-11 – DeRose discloses this limitation in that the electronic publishing system includes section headings, footnotes and figure titles; the electronic publishing system discloses "non-heading objects including at least one of: paragraphs, lists tables and graphics" in that it includes textual paragraphs and graphics).

Claim 8:

DeRose discloses the system of Claim 6, wherein said divisions between objects are identified based on at least one of: (i) a horizontal line, (ii) a larger than typical vertical spacing between text lines, (iii) heading marks, (iv) text properties and (v) special objects (see Column 18, Lines 8-10 – DeRose discloses this limitation in that the

electronic publishing system includes identifying divisions between objects that are "heading marks;" by including only the elements having titles in the table of contents, the electronic publishing system "identifies heading marks").

Claim 9:

DeRose discloses the system of Claim 6, wherein said control information identifies different objects (see Column 18, Lines 8-10 – the electronic publishing system discloses "control information that identifies different objects" in that the SGML document identifies every object in the "encompassing document").

Claim 10:

DeRose discloses the system of Claim 1, wherein said source of control information comprises an SGML document (as indicated in the above rejection for Claim 1, the electronic publishing system discloses this limitation).

Claim 11:

DeRose discloses the system of Claim 1, wherein said second document processor derives said external structure information by using said control information in hierarchically ordering said plurality of related sub-documents to conform to a hierarchical section numbering system (see Figures 16-18; see Column 18, Line 4 through Column 20, Line 13 – DeRose discloses this limitation in that the electronic publishing system includes construction of a table of contents by identifying the

elements, determining the hierarchical relationships between the elements and analyzing the element relationships to organize the elements into a table of contents; in other words, the electronic publishing system "uses the control information" to "hierarchically order" the "sub-documents" of the SGML document to "conform to a hierarchical section numbering system" in that it generates a table of contents).

Claim 12:

DeRose discloses a system for processing a plurality of related sub-documents to produce information associated with an encompassing document structure (as indicated in the above rejection for Claim 1, DeRose discloses this limitation), comprising:

- a source of control information for determining content structure of an encompassing document (as indicated in the above rejection for Claim 1, DeRose discloses this limitation);
- a first document processor for deriving internal structure information of each of said plurality of related sub-documents in response to said control information (as indicated in the above rejection for Claim 1, DeRose discloses this limitation);
- a second document processor for compiling encompassing document structure information by integrating related sub-document structure information (see Figures 16-18; see Column 18, Line 4 through Column 20, Line 13 – DeRose discloses this limitation in that the electronic publishing system constructs a table of contents by identifying the elements of the SGML document, determining the

hierarchical relationships between the elements and analyzing the element relationships to organize the elements into a table of contents); and

- a data generator for generating a table of contents representing said internal structure information and said encompassing document structure information (see Figures 9-11; see Column 18, Lines 63-64).

Claim 13:

DeRose discloses the system of Claim 12, wherein said second document processor compiles encompassing document structure information into a hierarchical structure (see Figures 9-11 – DeRose discloses this limitation in that the electronic publishing system displays the tables of contents in a hierarchical structure).

Claim 14:

DeRose discloses the system of Claim 12, wherein said data generator further generates menu icons representing navigation controls supporting User navigation through said internal structure information and said encompassing document structure using said table of contents (as indicated in the above rejection for Claim 2, DeRose discloses this limitation).

Claim 15:

DeRose discloses a User interface system supporting processing of a plurality of related sub-documents to produce information associated with an encompassing

document structure (see Figures 4, 5 and 9-11; see Column 3, Lines 44-53; see Column 4, Lines 32-37; see Column 11, Lines 27-37 – DeRose discloses this limitation in that the electronic publishing system is used to access portions of a large document), comprising:

- a menu generator for generating one or more menus permitting User selection of input sub-documents to be processed to create an encompassing document structure (see Figures 9-11; see Column 11, Lines 38-60 – DeRose discloses this limitation in that the electronic publishing system allows the user to specify search terms that are used to determine the elements around which a table of contents is built);
- an icon permitting User initiation of processing of related sub-document structure information to create an encompassing document structure derived by integrating related sub-document structure information into composite structure information (see Figures 9-11; see Column 11, Lines 38-60 – DeRose discloses this limitation in that the electronic publishing system allows a user to initiate the system processing by selecting the "lookup window" icon); and
- menu icons representing navigation controls supporting User navigation through said encompassing document structure using said composite structure information (as indicated in the above rejection for Claim 2, the electronic publishing system discloses this limitation).

Claim 16:

DeRose discloses the User interface system of Claim 15, wherein said User interface menu functions are incorporated into a web browser (see Column 7, Lines 48-50 – DeRose discloses this limitation, as clearly indicated in the cited text).

Claim 17:

DeRose discloses a system for processing a plurality of related sub-documents to produce information associated with an encompassing document structure (as indicated in the above rejection for Claim 1, DeRose discloses this limitation), comprising:

- a source of control information for determining content structure of an encompassing document (as indicated in the above rejection for Claim 1, DeRose discloses this limitation);
- a first document processor for deriving internal structure information by parsing the internal structure of each of said plurality of related sub-documents to identify structural object elements in response to said control information (see Figure 6; see Column 9, Lines 40-59 – DeRose discloses this limitation in that the electronic publishing system includes the element directory shown in Figure 6 that comprises information about each element of the "encompassing document");
- a second document processor for compiling encompassing document structure information by integrating related sub-document structure information, derived

using said identified object elements, into composite structure information (see Figures 16-18; see Column 18, Line 4 through Column 20, Line 13 – DeRose discloses this limitation in that the electronic publishing system includes construction of a table of contents by identifying the elements, determining the hierarchical relationships between the elements and analyzing the element relationships to organize the elements into a table of contents); and

- a processor for generating a navigation menu based on said composite structure information (see Figures 9-11; see Column 18, Lines 63-64 – DeRose discloses this limitation, as clearly indicated in the cited figures and text).

Claim 18:

DeRose discloses the system of Claim 17, wherein said navigation menu comprises a table of contents linked to associated content via a database (see Column 7, Line 31 through Column 8, Line 26 – DeRose discloses this limitation in that the electronic publishing system includes a client/server computer system).

Claim 20:

DeRose discloses the system of Claim 1, wherein the table of contents is represented as a hierarchical structure incorporating said internal structure information and said external structure information (see Figures 9-11; see Column 18, Lines 63-64 – DeRose discloses this limitation, as clearly indicated in the cited figures and text).

Response to Arguments

Applicant's arguments filed 14 October 2004 have been fully considered but they are not persuasive.

Arguments for Claims 1, 12, 15 and 17:

Applicant argues that DeRose fails to disclose "analyzing the structural relationship between said plurality of related sub-documents"' as claimed in Claim 1, "integrating related sub-document structure information"' as claimed in Claims 12 and 17, and "initiation of processing of related sub-document structure information to create an encompassing document structure" as claimed in Claim 15. Applicant asserts that DeRose teaches generating a representation of a document received as input (see col. 7, line 63 to col. 8, line 9, and col. 16, lines 35-41). Thus, Applicant reasons, DeRose merely represents a single document having a descriptive markup in a new way and does not teach processing more than one document, much less a system or method for processing related sub-documents. Therefore, Applicant reasons, DeRose fails to disclose the above specified limitations. See *Applicant's Response* – Page 11, first paragraph.

The examiner disagrees.

The electronic publishing system disclosed in DeRose is exactly in Applicant's field of endeavor. In the "Background of the Invention," DeRose discloses that publishers maintain a large document as a collection of small document fragments (see Column 3, Lines 44-53). In the independent claims of the present invention, the

"encompassing document structure" (see Claim 1, Line 2) reads on the "large document" and the "plurality of related sub-documents" (see Claim 1, Line 1) read on the "collection of small document fragments." The electronic publishing system in DeRose discloses operation manuals comprising an ordered hierarchy of content objects (see Column 8, Lines 12-26). As indicated in the above rejection for Claim 1, the SGML document (the "operation manual") is the "encompassing document" and the various elements of the SGML document (the "content objects") are the "sub-documents." Thus, the electronic publishing system in DeRose discloses processing more than one document and a system/method for processing related sub-documents.

Arguments for Claims 14, 16, 18 and 20:

Applicant argues that DeRose teaches a table of contents for an input document but fails to disclose a table of contents representing internal structure information and encompassing document structure, essentially as claimed in Claims 14, 16, 18 and 20. Applicant asserts that DeRose teaches a single input document. Thus, Applicant reasons, any table of contents would merely represent an internal structure of the input document. Applicant also asserts that DeRose does not teach related sub-documents and thus does not teach encompassing document structure, external sub-document hierarchies, or external structure information. Finally, Applicant asserts that DeRose fails to teach two or more input documents, and therefore encompassing document structure. See *Applicant's Response* – Page 12, first full paragraph.

The examiner disagrees.

The examiner cannot completely follow Applicant's line of reasoning but will attempt to respond to Applicant's argument.

Firstly, as indicated in the examiner's response to Applicant's arguments for Claims 1, 12, 15 and 17, DeRose discloses an "encompassing document structure" and a "plurality of related sub-documents" in that the electronic publishing system comprises the SGML document (the "operation manual") and the elements of the SGML document (the "content objects" within the SGML document). Thus, contrary to Applicant's assertions, the "single input document" in DeRose comprises a "plurality of sub-documents" that are "related" and are "inputted" into the electronic document structure.

Secondly, regarding Applicant's argument that DeRose fails to disclose "external structure information," an "external structure information" is defined in the Specification (see Page 11, Line 23 to Page 12, Line 12). In this portion of the Specification, an "external structure information" is defined as "hierarchical levels" to organize the "sub-documents" into a linear sequence. In other words, the various sections of the "encompassing document" are organized into a hierarchical table of contents. As clearly indicated in Figures 3-5 of DeRose, the "content objects" are organized into hierarchical levels that align the related "content objects" into "linear sequences." Also, as indicated by element 162 in Figure 9 of DeRose, the "content objects" are organized into a hierarchical table of contents. Thus, DeRose discloses "external structure information."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is (571) 272-4137. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

WDH
November 17, 2004

STEPHEN HONG
SUPERVISORY PATENT EXAMINER